

What is claimed is:

1. A G protein coupled receptor protein (GPCRP) which comprises an amino acid sequence represented by SEQ ID NO:1 or a substantial equivalent thereto which displays at least one GPCR activity selected from the group consisting of G protein ligand binding activity, GPCR signal transduction activity and GPCR cell stimulating activity; or a salt thereof.
2. A partial peptide of the G protein coupled receptor protein as claimed in Claim 1 except for SEQ ID NO:3 or fragments thereof, or a salt thereof.
3. The partial peptide of Claim 2, wherein the partial peptide is at least 16 amino acid residues.
4. The partial peptide of Claim 2, wherein the partial peptide has at least one functional GPCR domain.
5. A DNA which comprises a nucleotide sequence coding for the G protein coupled receptor protein as claimed in Claim 1 or the partial peptide as claimed in Claim 2 except for SEQ ID NO:5 or fragments thereof.
6. The DNA as claimed in Claim 5, which comprises the nucleotide sequence represented by SEQ ID NO:2.
7. A recombinant vector comprising the DNA as claimed in Claim 5.
8. A transformant transformed by the vector of Claim 7.
9. The transformant of Claim 8 which has the DNA of Claim 5.
10. A process for producing the G protein coupled receptor protein or a salt thereof as claimed in Claim 1, which comprises culturing the transformant as claimed in Claim 8 or 9 for a sufficient time and under sufficient condition to express the G protein coupled receptor protein, and collecting said G protein coupled receptor protein.
11. A method for identifying ligand to the G protein

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coupled receptor protein as claimed in Claim 1, which comprises contacting (i) the G protein coupled receptor protein or a salt thereof as claimed in Claim 1 or the partial peptide or a salt thereof as claimed in Claim 2, with (ii) a sample to be tested and determining whether binding has occurred.

12. A screening method for a compound capable of changing the binding activity of the G protein coupled receptor protein as claimed in Claim 1 with a ligand, or a salt thereof, which comprises making a comparison between: (i) at least one case where said ligand is contacted with the G protein coupled receptor protein or a salt thereof as claimed in Claim 1, or the partial peptide or a salt thereof as claimed in Claim 2, and (ii) at least one case where said ligand together with a sample to be tested is contacted with the G protein coupled receptor protein or a salt thereof as claimed in Claim 1 or the partial peptide or a salt thereof as claimed in Claim 2, and determining the difference in binding activity.

13. A kit for the screening of a compound capable of changing the binding activity of the G protein coupled receptor protein as claimed in Claim 1 with a ligand, or a salt thereof, which comprises the G protein coupled receptor protein or a salt thereof as claimed in Claim 1, or the partial peptide or a salt thereof as claimed in Claim 2.

14. A compound capable of changing the binding activity of the G protein coupled receptor protein as claimed in claim 1 with a ligand, or a salt thereof, which is obtained by the screening method as claimed in claim 12 or by using the kit for the screening as claimed in claim 13.

15. An antibody against the G protein coupled receptor protein or a salt thereof as claimed in Claim 1 or the partial peptide or a salt thereof as claimed in Claim

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